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Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				Complete if Known	
				Int. Application Number	PCT/GB03/04218
Sheet 1 of 1				Int. Appl. Filing Date	09/29/2003
				First Named Inventor	Ralph BRAUN
				Group Art Unit	Unassigned 1632
				Examiner Name	Unassigned /Wu-Cheng Winston Shen/
				Attorney Docket Number	036481-0165

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
/W.S./	A1	5,162,222	A	Linda GUARINO et al.	11-10-1992	

FOREIGN PATENT DOCUMENTS								
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		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
W.S./	A2	FR	2 715 664	A	PROTEINE PERFORMANCE SA	08-04-1995		
W.S./	A3	WO	98/30707	A	UNIV LONDON et al.	07-16-1998		

NON PATENT LITERATURE DOCUMENTS					
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/W.S./	A4	VAN DRUNEN et al., "Immunization of livestock with DNA vaccines: current studies and future prospects," <u>Vaccine</u> , March 21, 2001, pp. 2474-2479, Vol. 19, No. 17-19, Butterworth Scientific, Guildford, GB			

Examiner Signature	/Wu-Cheng Winston Shen/	Date Considered	04/02/2007
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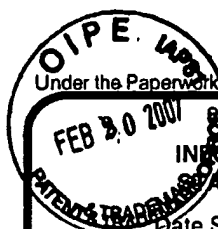
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**INFORMATION DISCLOSURE  
 STATEMENT BY APPLICANT**

Date Submitted: February 20, 2007

(use as many sheets as necessary)

Sheet 1 of 4

**Complete if Known**

Application Number	10/529,011
Filing Date	9/29/2003
First Named Inventor	Ralph BRAUN
Art Unit	1632
Examiner Name	Shen, Wu Cheng Winston
Attorney Docket Number	036481-0165

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W.S./	A1	US-5,057,540	10-15-1991	Kensil et al.	
W.S./	A2	US-5,171,568	12-15-1992	Burke et al.	
W.S./	A3	US-5,328,688	07-12-1994	Roizman	
W.S./	A4	US-5,378,814	01-03-1995	Houghton et al.	
W.S./	A5	US-5,865,796	02-02-1999	McCabe	
W.S./	A6	US-5,922,576	07-13-1999	He et al.	

**UNPUBLISHED U.S. PATENT APPLICATION DOCUMENTS**

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**FOREIGN PATENT DOCUMENTS**

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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
W.S./	A7	WO 89/04669	06-01-1989	Chiron Corporation		
W.S./	A8	WO 90/11089	10-04-1990	Chiron Corporation		
W.S./	A9	WO 90/14436	11-29-1990	Chiron Corporation		
W.S./	A10	WO 92/16636	10-01-1992	Immunology Limited		
W.S./	A11	WO 93/18759	09-30-1993	Bayor College of Medicine		
W.S./	A12	WO 93/19768	10-14-1993	The Regents of the Univ. of California		
W.S./	A13	WO 94/12202	06-09-1994	University of Dundee		
W.S./	A14	WO 96/29421	09-26-1996	Cantab Pharmaceuticals Research Limited		
W.S./	A15	WO 96/40955	12-19-1996	Frank L. GRAHAM		
W.S./	A16	WO 98/21345	05-22-1998	The General Hospital Corporation		
W.S./	A17	WO 01/32221 A1	05-10-2001	Powderject Vaccines, Inc.		
W.S./	A18	WO 01/46449 A1	06-28-2001	Biovex Limited		

Examiner Signature

/Wu-Cheng Winston Shen/

Date Considered

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				Art Unit	1632
				Examiner Name	Shen, Wu Cheng Winston
Sheet	2	of	4	Attorney Docket Number	036481-0165

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W.S./	A19	WO 01/46450 A1	06-28-2001	Biovex Limited		

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W.S./	A20	BAER, R., et al., "DNA Sequence and Expression of the B95-8 Epstein-Barr Virus Genome", <i>Nature</i> , July 19, 1984, Vol. 310, pp. 207-211.				
W.S./	A21	BIXLER et al., "Synthetic Peptide Representing a T-Cell Epitope of CRM197 Substitutes as Carrier Molecule in a Haemophilus Influenzae Type B (HIB) Conjugate Vaccine", <i>Adv. Exp. Med. Biol.</i> , (1989), Vol. 251, pp. 175-180.				
W.S./	A22	CHEE, M.S., et al., "Analysis of the Protein-Coding Content of the Sequence of Human Cytomegalovirus Strain AD169", <i>Current Topics in Microbiology and Immunology</i> , (1990), Vol. 154, pp. 125-169.				
W.S./	A23	COFFIN, R.S., et al., "Herpes Simplex Virus-Based Vectors - Genetic Manipulation of the Nervous System", <i>Academic Press Limited</i> , (1996), ISBN 0-12-437165-5, pp. 99-113.				
W.S./	A24	DAVIS, et al., "CpG DNA Is a Potential Enhancer of Specific Immunity in Mice Immunized with Recombinant Hepatitis B Surface Antigen" <i>The American Association of Immunologists</i> , 1998, <i>The Journal of Immunology</i> , (1998), Vol. 160, pp. 870-876.				
W.S./	A25	DAVISON, Andrew J., et al., "The Complete DNA Sequence of Varicella-Zoster Virus", <i>J. gen. Virol.</i> , (1986), Vol. 67, pp. 1759-1816.				
W.S./	A26	ERTL, C. J., et al., "Novel Vaccine Approaches", <i>The Journal of Immunology</i> , (1996), Vol. 156, pp. 3579-3582.				
W.S./	A27	FYNAN, E. F., et al., "DNA Vaccines: Protective Immunizations by Parenteral, Mucosal, and Gene-Gun Inoculations", <i>Proc. Natl. Acad. Sci. USA</i> , December 1993, Vol. 90, pp. 11478-11482.				
W.S./	A28	FYNAN, E. F., et al., "DNA Vaccines: A Novel Approach to Immunization", <i>Int. J. Immunopharmac.</i> , (1995), Vol. 17, No. 2, pp. 79-83.				

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		Filing Date	9/29/2003
		First Named Inventor	Ralph BRAUN
		Art Unit	1632
		Examiner Name	Shen, Wu Cheng Winston
Sheet	3	of	4
		Attorney Docket Number	036481-0165

NON PATENT LITERATURE DOCUMENTS			
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W.S./	A29	HASSETT, D. E., et al., "DNA Immunization", <i>Trends in Microbiol.</i> , August 1996, Vol. 8, pp. 307-312.	
W.S./	A30	HOUGHTON, Michael, et al., "Molecular Biology of the Hepatitis C Viruses: Implications for Diagnosis, Development and Control of Viral Disease", <i>Hepatology</i> , (1991), Vol. 14, No. 2, pp. 381-388.	
W.S./	A31	IMOTO, M., et al., "Total Synthesis of <i>Escherichia Coli</i> Lipid A", <i>Tetrahedron Letters</i> , (1985), Vol. 26, No. 12, pp. 1545-1548.	
W.S./	A32	KILPATRICK, K. E., et al., "Rapid Development of Affinity Matured Monoclonal Antibodies Using RIMMS", <i>Hybridoma</i> , (1997), Vol. 16, No. 4, pp. 381-389.	
W.S./	A33	KILPATRICK, K. E., et al., "Gene Gun Delivered DNA-Based Immunizations Mediate Rapid Production of Murine Monoclonal Antibodies to the Flt-3 Receptor", of Murine Monoclonal Antibodies to the Flt-3 Receptor", <i>Hybridoma</i> , (1998), Vol. 17, No. 6, pp. 569-576.	
W.S./	A34	KRIEG, A. M., et al., "CpG Motifs in Bacterial DNA Trigger Direct B-Cell Activation", <i>Nature</i> , April 6, 1005, Vol. 374, pp. 546-549.	
W.S./	A35	LACHMANN, R. H., et al., "The Use of Herpes Simplex Virus-Based Vectors for Gene Delivery to the Nervous System", <i>Molecular Medicine Today</i> , September, (1997), Vol. 3, No. 9, pp. 404-411.	
W.S./	A36	LATCHMAN, D. S., et al., "Gene Delivery and Gene Therapy with Herpes Simplex Virus-Based Vectors", <i>Gene</i> , (2001), Vol. 264, pp. 1-9.	
W.S./	A37	MANICKAN, Elanchezhian, et al., "DNA Vaccines - A Modern Gimmick or a Boon to Vaccinology?", <i>Critical Reviews in Immunology</i> , (1997), Vol. 17, pp. 139-154.	
W.S./	A38	MCGEOCH, D.J., et al., "The Complete DNA Sequence of the Long Unique Region in the Genome of Herpes Simplex Virus Type 1", <i>J. gen. Virol.</i> , (1988), Vol. 69, pp. 1531-1574.	
W.S./	A39	MEDZHITOV, R., et al., "Innate Immunity: Impact on the Adaptive Immune Response", <i>Current Opinion in Immunology</i> , (1997), Vol. 9, pp. 4-9.	
W.S./	A40	MODROW, S., "Computer-Assisted Analysis of Envelope Protein Sequences of Seven Human Immunodeficiency Virus Isolates: Prediction of Antigenic Epitopes in Conserved and Variable Regions", <i>Journal of Virology</i> , Feb. 1987, Vol. 61, No. 2, pp. 570-578.	

Examiner Signature	Wu-Cheng Winston Shen/	Date Considered	04/02/2007
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/W.S./	A41	PAYNE, L. G., et al., "Poly[di(carboxylatophenoxy)phosphazene] (PCPP) is a Potent Immunoadjuvant for an Influenza Vaccine", <i>Vaccine</i> , (1998), Vol. 16, No. 1, pp. 92-98.	
/W.S./	A42	PERTMER, T. M., et al., "Gene Gun-Based Nucleic Acid Immunization: Elicitation of Humoral and Cytotoxic T Lymphocyte Responses Following Epidermal Delivery of Nanogram Quantities of DNA", <i>Vaccine</i> , (1995) Vo. 13, No. 15, pp. 1427-1430.	
/W.S./	A43	RAZ, E., et al., "Intradermal Gene Immunization: The Possible Role of DNA Uptake in the Induction of Cellular Immunity to Viruses", <i>Proc. Natl. Acad. Sci. USA</i> , September 1994, Vol. 91, pp. 9519-9523.	
/W.S./	A44	THOMAS, S. K., "Herpes Simplex Virus Latency-Associated Transcript Encodes a Protein Which Greatly Enhances Virus Growth, Can Compensate for Deficiencies in Immediate-Early Gene Expression, and is Likely to Function During Reactivation from Virus Latency", <i>Journal of Virology</i> , August 1999, Vol. 73, No. 8, pp. 6618-6625.	
/W.S./	A45	WOLFF, J. A., "Direct Gene Transfer into Mouse Muscle in Vivo", <i>Science</i> , March 23, 1990, Vol. 247, pp. 1465-1468.	
/W.S./	A46	YANG, N-S, et al., "In vivo and in vitro Gene Transfer to Mammalian Somatic Cells by Particle Bombardment", <i>Proc. Natl. Acad. Sci. USA</i> , December 1990, Vol. 87, pp. 9568-9572.	

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